

Marten

(*Martes americana*)

Marten, also known as pine marten or American marten, are forest-dwelling members of the weasel family, Mustelidae. Marten are closely related to the Russian sable and were often referred to by early trappers as American sables in an attempt to increase the market value of their fur. Other relatives of the marten include weasels, skunks, badgers, mink, otters and fishers. Because of their excellent tree-climbing abilities and because they are most often observed high up in trees, marten are referred to as semi-arboreal. However, their long, slender, weasel-like bodies make it possible for them to fit easily in underground burrows as well, where they rest, den, or pursue prey, such as squirrels and other small rodents.

Description

Marten are about the size of a small house cat, with a silky, dark, chocolate brown coat and a distinctive orange throat patch. Like most members of the weasel family, marten are long and slender -- an adaptation that allows them to pursue their main food source, small mammals, in narrow burrows and cavities. They are 19 to 28 inches in length and weigh 14 to 22 ounces. Their bushy tail comprises about one third of their body length and helps them balance while climbing. They also have proportionally longer back legs and semi-retractile claws which help them climb easily and maneuver in trees. Prominent, rounded, set-apart ears frame small dark eyes and a pointed nose. Marten have dark, vertical "eyebrows" which actually are sensitive vibrissae (long, stiff hairlike projections similar to cat whiskers). These vibrissae tuft the fur above the eyes and give the marten its well-known inquisitive look.

Habitat

In the western United States, marten are almost exclusively found in mature coniferous forests. Characteristics of preferred marten habitat include a diversity (in size and composition) of large, mature trees, overhead protective cover, dead standing trees and an abundance of woody debris on the forest floor, such as fallen trees and large fallen branches. These are all characteristics of habitat found in what is commonly referred to as "old-growth forest." These habitat components help protect marten from predators and are thought to increase the suitability for, and thus abundance of, the small mammals upon which



marten prey. Woody debris on the forest floor also allows marten to gain access to prey and den sites beneath the deep winter snowpack. This access also enables them to escape the severe winter cold and winds and, thus, conserve body energy. Stands of even-aged forest do not provide suitable habitat for marten because they lack many of the necessary habitat components, such as species diversity, dead standing trees and debris on the forest floor. Because marten are reluctant to cross large open areas, severe disturbance of the forest by large fires or forest clear-cutting may prevent repopulation for decades.

Food Habits

Marten are opportunistic carnivores that prey primarily upon red squirrels and a mouse-like rodent known as the red-backed vole. However, marten will change their diet to take advantage of seasonal changes in food abundance. Therefore, marten will also prey on shrews, voles, flying squirrels, rabbits, birds and eggs when they're available. In addition, marten supplement their diet with berries, nuts, honey and the carrion of animals, such as deer, moose and beaver. A marten needs about 80 calories of energy from its food each day, which is approximately equivalent to the energy it would get from eating three red-backed voles.

Predators

Because of their relatively small size, marten may be preyed upon by larger predators, such as great horned owls, eagles, foxes, mountain lions, coyotes and lynx. One of the marten's relatives, the fisher, is about twice the size of the marten and is a major predator on marten in Canada and in the northern regions of the United States. However, the fisher is not known to live in Utah.

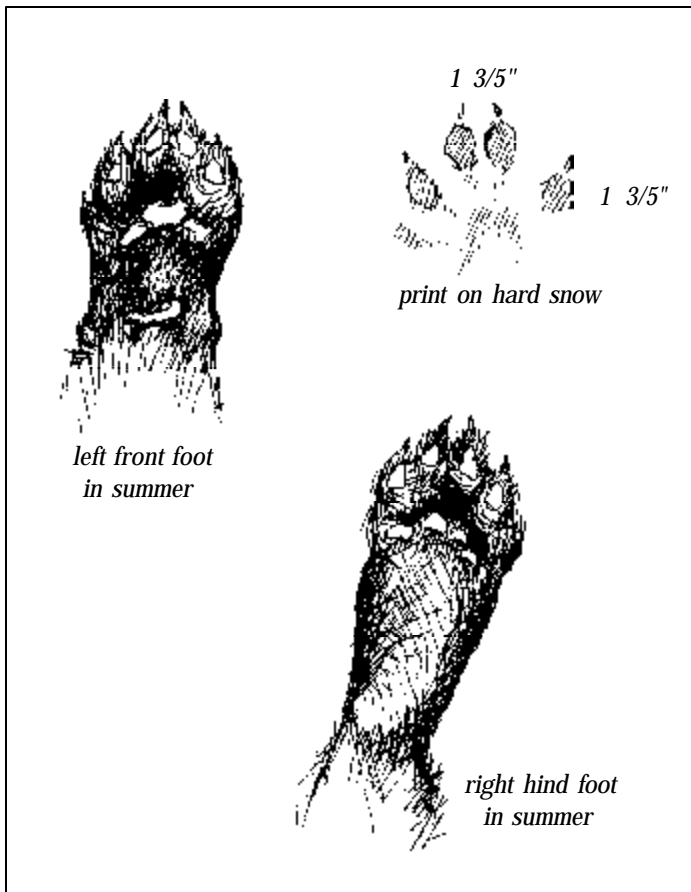
Behavior

Marten are territorial and use their scent glands to mark boundaries. Males usually have larger territories than females. One male in a recent Utah study, for example, was recaptured over three miles from its original capture site. The territories of males may also include parts of the territories of several females if food is abundant. A female's territory is much smaller but may have a higher concentration of prey and other food with which to support herself and growing young (kits).

Marten are considered to be nocturnal, but they also may be active at dawn and dusk. Marten do not hibernate, yet they may be active only during the warmest part of the day during the winter.



Although the marten is an adept hunter on the ground, it also hunts in trees.



Reproduction

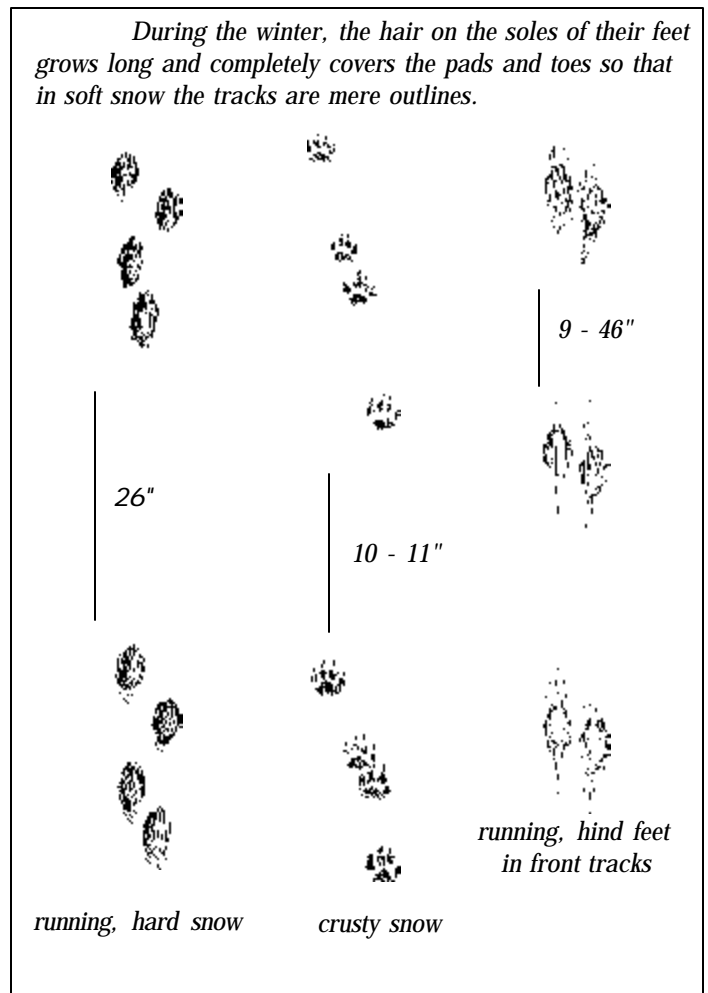
Marten usually breed at about two years of age. The breeding season is late June through early September, yet the kits are not born until the following spring, mid-March to late April. Due to a process called delayed implantation, the growth of the embryo is suspended for eight months then resumes again about 27 days before the kits are born. Delayed implantation is common in members of the weasel family living in colder climates with long winters.

Females most often use tree cavities as nest sites, but they may also use underground burrows, leaf nests and branch boles. Females line the nest with leaves and grass in preparation for the birth of the kits. When the kits are older and more active, the female often moves them from the tree cavity to a nest/den closer to the ground in a deadfall.

At birth, the kits weigh about one ounce. They have very little hair, and their eyes and ears are closed. By the end of June, the young have reached their adult length, but they will continue to gain weight. By September, the kits are mature enough to leave their mother and find territories of their own.

Distribution in Utah

Marten habitat in Utah is found at elevations of 8,000 to 10,000 feet and contains a mixture of mature Douglas fir, Engelmann spruce, subalpine fir and lodgepole pine. Beneath the canopy of tall trees are shrubs, smaller trees and a variety of grasses and forbs. Marten are most abundant in mature forest stands located in the Uinta Mountains. Scattered sightings indicate their presence in other high, forested ranges in Utah, such as the Wasatch Mountains and the Manti-LaSal Forest.



Current Status and Management

Marten are classified as furbearers and are protected by the Utah Wildlife Code. Currently, studies are being conducted to determine their status, distribution and population density. Marten are also being studied to determine their habitat requirements and their susceptibility to habitat fragmentation that occurs with fire and clear-cuts.

A Seasonal Look at Marten Behavior

January	<i>Marten do not hibernate. They remain active year round, although they may be out only during the warmest part of the day in the winter.</i>
February	<i>Marten will look for mice and squirrels by tunneling through the snow's upper layers to the space left by melting snow next to the soil. This is called the subnivean zone.</i>
March	<i>A female expecting young may begin building a nest in an old woodpecker hole or squirrel nest high in a tree. She will line the nest with soft grass and leaves.</i>
April	<i>Two to five (average of three) young, called kits, are born with little fur and with their eyes and ears closed. At birth they weigh about one ounce.</i>
May	<i>Kits' ears open at about 24 days, and their eyes open at about 29 days. When the young become more active, their mother may move them to a new nest in a deadfall closer to the ground.</i>
June	<i>Male marten start roaming longer distances to locate females with which to breed. Encounters between males competing for females occur frequently.</i>
July	<i>Young squirrels and other rodents are plentiful and are preyed upon heavily by marten. Fledgling birds as well as eggs in late nests also may fall prey to marten.</i>
August	<i>Young marten are growing stronger and more aggressive and are less dependent on their mother. Marten are feeding on available berries. Marten must be wary of their predators, which also are more abundant at this time of year.</i>
September	<i>Young marten born last spring are now the size and weight of adults. They also are mature enough to leave their mother and establish territories of their own.</i>
October	<i>Marten will pursue squirrels across the tree tops, leaping from branch to branch. If the squirrel become stranded on a branch, the marten may rush it or shake it loose. Marten are also feeding on pine nuts.</i>
November	<i>Marten do not store food for the winter nor do they have abundant fat reserves, so they must continue to find food throughout the winter months in order to survive.</i>
December	<i>To escape the harsh winter weather, marten use old squirrel dens or other underground burrows for shelter.</i>

Written by Carolie Parker, Biological Aide; edited by Ken McDonald, Wildlife Biologist and Brenda Schussman; illustrated by Jill Rensel. (Images may not be reproduced)